Uinta Basin Air Program Strategy
March 13, 2014

The Uinta Basin has been experiencing extremely high levels of ozone in the winter months over the past few years and may be designated as nonattainment in the next ozone NAAQS designation cycle (starting in approximately 2016). The Utah DEQ and the Ute Tribe have both signed up for EPA's voluntary Ozone Advance program. The Air Program has had discussions with the Tribe, the state and industry operating in the Basin. Air Program management met in January 2014 to develop an air plan for addressing air quality issues in the Basin. We have identified six Air Program work areas as detailed below.

1. Community outreach

Summary:

- Education and involvement of communities on both state and tribal land is vital to protecting public health while not interfering with the tribal and state governments' goal of promoting energy and economic development. Proactive work done now with these communities may lead to community actions to reduce public exposure to pollutants as well as reductions in air pollutant emissions. It may also increase chances for success with EPA's regulatory work in the Basin (e.g. permitting, state and federal implementation plans). Efforts currently underway include working with R8's Environmental Justice Program to implement EPA's School Flag Program, which alerts schools to the local air quality forecast and helps them to take actions to protect students' health, especially those with asthma. We are also engaging with the Tribe using EPA's AirNow tools.
- Identify and leverage existing champions/community leaders in the tribal community to assist with outreach around voluntary efforts to reduce ozone (VOC and NOx) emissions and protect public health.
- Future efforts may include engaging ORD on the feasibility of applying their Sustainability and Healthy Communities Research Tools in the Uinta Basin. We may utilize the Community-Focused Exposure and Risk Screening Tool (C-FERST). Also, we may explore the feasibility of piloting ORD's Next Generation Air Monitoring Program in the Basin. Over the past few years, ORD has partnered with the commercial sensor industry and academic institutions to develop low-cost tools that are appropriate for monitoring personal air quality in community settings.

2. General Permit/Federal Implementation Plan for oil and gas

Summary:

- On December 12, 2013, the Administrator signed a proposed rule, known as "Bundle 1" to simplify the CAA permitting process for true minor sources commonly found in Indian country. This action proposes: (1) general permits and permits by rule for certain source categories, (2) an extension of the minor source permitting deadline for true minor sources within the oil and gas source category, and (3) to change the policy in the Indian Country Minor New Source Review Rule to allow for the use of general permits (and permits by rule) to create synthetic minor sources. This action will ensure that air quality in Indian country is protected by facilitating the implementation of the Indian Country Minor Source New Source Review Rule issued by EPA in July 2011. The proposed rule was published in the FR on January 14, 2014.
- As part of Bundle 1, EPA proposed to extend the permitting deadline for true minor sources within the oil and gas source category from the September 2, 2014 deadline to a date within a range from September 2, 2015 to March 2, 2016.
- Bundle #1 includes: gas dispensing facilities, auto body repair and miscellaneous surface coating operations, petroleum dry cleaners, stone quarrying, crushing and screening facilities, hot mix asphalt plants, and landfills (taking comment on whether to do a general permit for this category)
- Bundle #2 includes: boilers, engines, printing operations, concrete batch plant, saw mills
- Bundle #3 includes: oil and natural gas operations and production

- Region 8 will continue to work closely with HQ (OAR/OAQPS/OGC) to develop a national permitting solution for oil and gas operations and production (Bundle #3). Our primary contribution will be our expertise and experience in this sector. We will strive to find a solution that would be applicable to the unique air quality challenges in the Uinta Basin
- If a national permitting solution will not be applicable to the Uinta Basin, we will work with the Tribe to develop a reservation-specific permit solution.

3. Monitoring

Summary:

- Attached maps summarize the monitoring locations and regulatory status in the Basin.
- Attached table summarizes the ozone values we are seeing at each station.
- Region 8 will work with the states (Colorado and Utah), the Ute Tribe, TAP and our contractors to maintain the current monitoring effort in the Basin. We are currently working on a cooperative agreement with the Ute Tribe to enable them to take over the operation of the four monitors on Tribal land in the basin. On April 29, 2014, Regional Administrator Shaun McGrath sent a letter of support for the Ute Tribe's commitment to developing an ambient air monitoring program.

4. Deseret power plant permit action (soon-to-be court-ordered deadline)

Summary:

- Bonanza is a 500 megawatt coal-fired electric utility power plant located on the Uintah & Ouray Reservation. Initial construction was PSD-permitted by EPA in 1981, operation began in 1985.
- WildEarth Guardians (WEG), filed a lawsuit on 12/23/2013 to compel EPA to issue the title V operating permit for the Deseret Bonanza power plant.
- The Title V permit was taken out to public comment in 2002, but it was never issued final. National Park Service commented that a PSD major modification occurred in June 2000 without the required PSD permit.
- A revised title V operating permit was proposed on May 1, 2014, initiating a 45 day comment period.
- The Region is currently working with DOJ to negotiatiate a deadline for issuing the final title V permit.
- Region 8 will continue to work with HQ to issue the Title V permit according to the yet-to-be-decided court-ordered deadline. Our goal is to also issue a PSD "correction" permit as soon as possible after the title V operating permit is finalized. We are consulting with the Ute Tribe's Business Committee as part of proposing both the Title V permit and PSD correction permit.

5. **Ozone Advance**

Summary:

- The State of Utah and the Ute Tribe have signed up to participate in EPA's new Ozone Advance program. The goal of the program is to proactively reduce nitrogen oxides and volatile organic compound emissions in areas, such as the Uinta Basin, which are not currently designated non-attainment.
- Utah enrolled Duchesne and Uintah Counties in Ozone Advance as a result of EPA's June 2012 designation of "unclassifiable" for these two counties. The Ute Tribe enrolled in the Program after receiving information from EPA on the winter ozone issue and because of the benefit of having a coordinated Basin-wide approach to reducing emissions.
- Because of the known wintertime ozone problem, any state minor source permits issued in the area (such as for oil and gas sources) must demonstrate that they won't "cause or contribute to further degradation of air quality." Under Ozone Advance, Utah is designing a permitting program that could allow the area to continue oil and gas development without increasing emissions. Currently, the primary tool being considered for this demonstration involves a real time emissions inventory based on production information. An emissions offset program,

similar to Wyoming's current policy was considered by Utah, but was rejected due to concerns expressed by oil and gas producers. Since approximately 70 percent of sources in the Basin are on tribal land, Utah needs EPA and the Ute Tribe to collaborate with them on this permitting approach.

- Utah and the Ute Tribe are sharing information with each other on their respective Action Plans, which describe the measures/programs that will be implemented to get reduced emissions in the area. The week of April 28, 2014 Utah submitted to EPA a draft Action Plan that revised and updated the plan submitted to EPA on May 22, 2013. Utah has been conducting outreach to industry, environmental groups and other stakeholders to discuss its draft permitting policy and engage industry in committing to Best Management Practice reduction measures.
- EPA does not yet have permitting authority in Indian country for minor sources (such as oil and gas well sites). However, success in reducing ozone formation in the Uinta Basin, and potentially avoiding a nonattainment designation (or more likely a lower classification), will require the engagement and participation of all parties on state and tribal lands. Therefore, given the number of existing oil and gas sources located within the Reservation, EPA plans to explore with the Ute Tribe the Tribe's authorities to require or make enforceable any measures/programs that will reduce emissions consistent with the State's program.
- EPA is committed to working with the State and the Ute Tribe to develop and implement a program aimed at implementing measures to quickly achieve and track early emission reductions. Consistent with Ozone Advance, reductions should occur as quickly as practical and before the area is potentially designated non-attainment. EPA's national designation process for ozone will begin once EPA finalizes a revised ozone NAAQS sometime in the next couple of years (currently planned for late 2015).

6. Winter air quality studies/modeling

Summary:

- Utah DEQ and BLM have initiated efforts to model winter ozone formation and to assess the relative effectiveness of VOC and NOx emissions reductions for reducing winter ozone levels.
- EPA is participating in coordination with multiple stakeholders in planning and analysis of ambient monitoring field studies to understand the chemistry and the emissions sources that contribute to high winter ozone levels in the Uinta Basin. A 2012 field study was useful for characterizing emissions sources, but ozone levels were low in 2012 because of the lack of snow cover. A 2013 field study captured measurements during several ozone episodes, and a report on the results of the 2013 study is available at: http://www.deq.utah.gov/locations/uintahbasin/UBOS-2013.htm
- A 2014 field study was designed to evaluate unique aspects of the photochemistry, including the role of snow in producing unconventional sources of the free radicals that initiate ozone formation. Analysis of data from the 2014 study is currently in progress and a report will be available in February 2015.
- EPA is performing photochemical model simulations of winter ozone in the Uinta Basin to assess the most effective emissions mitigation strategies to reduce winter ozone levels. EPA is also coordinating model research and development with air quality modelers at Utah DEQ, university researchers in Utah, NOAA air quality modelers, and the Three State Air Quality Study. Significant uncertainties remain in both the unique chemistry of winter ozone and in the emissions inventory data. This creates uncertainty in model predictions of winter ozone concentrations and in the response of winter ozone to reductions in VOC and NOx emissions. Model development efforts are expected to continue at least through 2015.
- The Region will continue to provide technical support to the studies and modeling efforts in the basin.